

## **Appendix E**

### **Federal Candidate Species and BLM Special Status Species**

#### *Greater Sage-Grouse*

Greater sage-grouse (*Centrocercus urophasianus*) habitat distribution data has been kept historically by the NDOW. According to NDOW habitat distribution maps, the closest greater sage-grouse winter distribution as well as nesting habitat is approximately two miles south of the project area and the closest greater sage-grouse summer distribution is located approximately one mile southwest of the project area (NDOW, 2012, in the EA).

Greater sage-grouse is found throughout Nevada in sagebrush-dominated habitats. Sagebrush is a key component of greater sage-grouse habitat on a year-long basis (USFWS, 2006, in the EA). Sagebrush provides forage and nesting, security, and thermal cover for this species. Moist areas that provide succulent herbaceous vegetation during the summer months are used extensively as brood rearing habitat. Open, often elevated areas within sagebrush habitats usually serve as breeding areas (strutting grounds or lek sites) (USFWS, 2006, in the EA). Greater sage-grouse males begin displaying on leks in March, and hens typically begin nesting in April and May. During winter, greater sage-grouse often occupy wind exposed areas where sagebrush is available (e.g., drainages, southern or western slopes, or exposed ridges).

The project area is not located within historical greater sage-grouse habitat, nesting habitat, brood rearing habitat, nor is it located between greater sage-grouse habitat. The nearest documented greater sage-grouse distribution is late-summer habitat located approximately one mile south of the project area. Greater sage-grouse distribution in the region occurs historically at least one mile south of the project area and occurs in a northwest-southeast trend. Potential greater sage-grouse habitat in the project area includes the Great Basin Xeric Mixed Sagebrush Shrubland vegetation community on the western side of the project area and around both well sites and the gravel pit on the eastern side of the project area; however, given the discontinuity of the Great Basin Xeric Mixed Sagebrush Shrubland in the project area, greater sage-grouse habitat and the lack of quality habitat in the project area it is unlikely greater sage-grouse would use the project area. Focused surveys for the greater sage-grouse were conducted in June 2012. Sagebrush-dominated habitats were searched and no greater sage-grouse and/or sign of the species (e.g., tracks, pellets, feathers, tar, nests, egg shells, etc.) were observed during the surveys.

### **BLM Special Status Species**

#### *Birds*

BLM special status bird species that were observed in the project area include Brewer's sparrow (*Spizella breweri*), loggerhead shrike (*Lanius ludovicianus*), and pinyon jay (*Gymnorhinus cyanocephalus*). The locations of these birds are shown on Figure 5 in the EA.

Brewer's sparrows were observed with some frequency in the Inter-Mountain Basins Big Sagebrush Shrubland community in the project area during baseline surveys conducted by JBR in June 2012. No evidence of nesting activity was found during the surveys. Brewer's sparrows are sagebrush specialists and, with the exception of southern region, occur statewide in Nevada (Floyd et al., 2007, in the EA). Great Basin Xeric Mixed Sagebrush Shrubland vegetation community as well as Mountain Basin Mixed Salt Desert Scrub vegetation community within the project area provide suitable foraging and nesting habitat for Brewer's sparrow.

Loggerhead shrikes were observed within the Great Basin Pinyon-Juniper Woodland vegetation community during baseline surveys conducted by JBR in June 2012. No evidence of nesting activity was found during the surveys. Distribution occurrence is widespread in Nevada with lower probability for occurrence in forests, higher mountains, barren zones, and urban areas (Floyd et al., 2007, in the EA). Loggerhead shrikes tend to favor arid open areas for breeding (Floyd et al., 2007, in the EA).

Small groups of pinyon jays were observed in the Great Basin Pinyon-Juniper Woodland on the western side of Kinsley Mountain within the project area during surveys performed in June 2012. No evidence of nesting activity was found during the surveys. Distribution of the pinyon jay occurs throughout Nevada and corresponds to the occurrence of pinyon pine in the state (Floyd et al., 2007, in the EA). Pinyon jay primarily utilizes Great Basin Pinyon-Juniper Woodlands for foraging and nesting; however, they will use sagebrush shrublands for foraging when preferred habitat is in short supply (Floyd et al., 2007, in the EA).

Black rosy-finch (*Leucosticte atrata*), has a potential to occur in the project area. These species have foraging and/or nesting habitat within the project area; however, none were observed during surveys. The black rosy-finch breeds in alpine areas, usually near rock piles and cliffs. This species winters in open country including mountain meadows, high deserts, valleys, and plains. Rock piles and cliffs within the project area provide suitable breeding habitat and Great Basin Xeric Mixed Sagebrush Shrubland vegetation community as well as Mountain Basin Mixed Salt Desert Scrub vegetation community within the project area provides suitable wintering habitat for the black rosy-finch.

### *Insects*

No BLM special status insects were detected in the project area. Scattered patches of slender buckwheat (*Eriogonum microthecum*), the primary host plant for the Mattoni's blue butterfly (*Euphilotes pallescens* var. *mattonii*), were observed ridgelines within the project area during baseline surveys conducted by JBR in 2012. Slender buckwheat is a common subshrub species in the western United States with a distribution that includes Nevada, Washington, Oregon, California, Arizona, Utah, Colorado, Wyoming, Idaho, and Montana (Flora of North America, 2005, in the EA). Slender buckwheat populations in the project area were sparsely scattered on ridgelines (individual plants were located more than five feet apart, in most instances). Mattoni's

blue butterfly is associated with dense stands of slender buckwheat where the host plant is the dominant species. Since host vegetation requirements were not observed during surveys, Mattoni's blue butterfly is not addressed further in the EA.

### *Molluscs*

No BLM special status mollusks were detected in the project area. Mountain land snails (*Oreohelix* sp.) are known to occur in the Goshute Mountain approximately four miles northeast of the project area. Mountain land snails are dependent on calcareous minerals to form their shells. They survive winters and summers by burrowing beneath litter or talus rock and are only active in the spring and fall. No large talus outfalls occur in the project area. A mountain land snail survey was performed by JBR in 2012, in locations where calcareous derived rock outfalls occur, to establish the presence or absence of these gastropods and document potentially suitable habitat within the project area. Areas of scree were searched and no mountain land snail shells were found. The scree in the project area is very shallow and in many cases, the soil is visible through it. Mountain land snails are not capable of heating or cooling themselves, so they burrow in deep rock piles in the summer and winter to avoid extreme hot and cold temperatures. The rock slides in the project area do not represent suitable habitat for mountain land snails.

### *Raptors*

JBR conducted nesting raptor surveys for the project and those areas within a four-mile buffer around the project area. The surveys included an initial aerial (rotor-wing) survey of the area on May 29, 2012, and a subsequent ground survey June 25 through 29, 2012, to verify previously identified nests and gather additional characteristics for each nest and location.

BLM special status raptor species observed in the area include ferruginous hawk (*Buteo regalis*), prairie falcon (*Falco mexicanus*), and golden eagle (*Aquila chrysaetos*).

Ferruginous hawks are found seasonally throughout Nevada and have suitable foraging and nesting habitat within the project area. This species is a year-round resident in southern Nevada with occupancy in central and northern Nevada restricted to seasonal breeding (WAPT, 2006, in the EA). Breeding occurs from late February to early October (Bechard and Schmutz, 1995, in the EA). Fledging times tend to vary depending on available prey. In Nevada, ferruginous hawks nests primarily in live juniper trees and forage in open sagebrush and saltbush-greasewood shrublands (WAPT, 2006, in the EA). An inactive stick nest that is presumably a ferruginous hawk nest occurs less than one mile east of the project area. Ferruginous hawks have been observed numerous times foraging in the project area (Burton, 2012, in the EA). This species was also observed during surveys performed by JBR in 2012.

Prairie falcons have suitable foraging and nesting habitat within the project area. Prairie falcons occur throughout the Great Basin and are permanent resident in Nevada. Habitat requirements include steep cliff ledges and outcrops for nesting that border semi-arid valleys (WAPT, 2006, in

the EA). The highest nesting densities in Nevada occur in northern counties, particularly located in or near the mouth of narrow canyons, overlooking riparian vegetation and agricultural lands (Herron et al., 1985, in the EA). Prairie falcons begin nesting in March and young typically fledge by July. This species has been observed flying and foraging over the project area (Burton, 2012, in the EA).

Golden eagles have foraging habitat within the project area and vicinity. In addition to being a BLM special status species, golden eagles are protected by the MBTA and the Bald and Golden Eagle Protection Act. In eastern Nevada, suitable nesting habitat for golden eagle is primarily cliffs and ledges. The golden eagle is a year-long resident and is considered to be commonly breeding throughout Nevada; however, eagle densities and nesting activities are greatest in the northern third of Nevada (Herron et al., 1985, in the EA). Nesting golden eagles prefer suitable cliffs that overlook sagebrush flats, pinyon-juniper forest, salt desert scrub, or other habitats capable of supporting a suitable prey base. Highest densities of nesting eagles typically are found along river systems where cliffs border the entire length of the river. Lower densities are found in pinyon-juniper habitat and salt desert shrub communities (Herron et al., 1985, in the EA). Golden eagles begin nesting in March and young fledge by July. Wintering golden eagles tend to congregate in broad valleys interspersed with agricultural croplands or sagebrush and desert scrub communities. One active golden eagle nest was found by JBR during the 2012 survey and is located approximately 1.3 miles north of the project area on the west side of Kinsley Mountain. The active golden eagle nest was composed of fresh construction materials and was located in the vicinity of a previously-recorded golden eagle nest. One juvenile was present in the nest. An adult mated pair was observed foraging over the project area during the surveys.

BLM special status raptor species with potential to occur within the project area include bald eagle (*Haliaeetus leucocephalus*), western burrowing owl (*Athene cunicularia hypugaea*), northern goshawk (*Accipiter gentilis*), and Swainson's hawk (*Buteo swainsoni*). All of these species have foraging and/or nesting habitat within the project area; however, none were observed during surveys.

The bald eagle is found throughout Nevada, although mainly as a migrant and winter resident (Floyd et al., 2007, in the EA). In addition to being a BLM special status species, bald eagles are protected by the MBTA and the Bald and Golden Eagle Protection Act. Bald eagles have a nesting distribution that is largely restricted to coastal areas, lakes, and rivers (WAPT, 2006, in the EA). Nests are typically very large stick nests located in large trees such as cottonwoods. Bald eagles typically begin nesting in February, and young fledge by July. One bald eagle nest has been reported in northeastern Nevada and one nest has been reported in western Nevada. Aerial and ground surveys did not detect any bald eagles or bald eagle sign within or near the project area (nests, white wash). The potential for this species to occur in the project area is low.

The western burrowing owl is known to breed throughout Nevada in abandoned burrows. The majority of the breeding population is known to migrate from northern Nevada during the winter months. However, observations of this owl have been recorded throughout Nevada during all months of the year (Herron et al., 1985, in the EA). Breeding by western burrowing owls is strongly dependent on the presence of burrows constructed by prairie dogs, ground squirrels, or badgers. Prime western burrowing owl habitat must be open, have short vegetation and contain an abundance of burrows. Western burrowing owls begin nesting in April, and young typically fledge by August. Suitable foraging and nesting habitat occurs in the project area in the lower elevations where vegetation is open. Ground surveys conducted by JBR in 2012 did not yield any sign of burrowing owls or burrowing owl activity (scat, tracks, feathers, burrows). Few burrows were found during surveys suggesting that the soils in the area are not friable. Potential for this species to occur in the project area is low.

Northern goshawks have suitable foraging habitat within the project area. In Nevada, northern goshawks typically forage in shrub dominate habitats and nest in aspen tree (*Populus tremuloides*) stands (Floyd et al., 2007, in the EA). Great Basin Xeric Mixed Sagebrush Shrubland vegetation community as well as Mountain Basin Mixed Salt Desert Scrub vegetation community within the project area provides suitable foraging habitat for northern goshawk. Given the lack of aspen stands and lack of surface water resources in the area, it is unlikely the northern goshawk nests within the project area. Potential for this species to occur in the project area is low.

The Swainson's hawk occupies open grasslands and shrublands in northern Nevada with concentration running north-eastward from western Nevada through the Lahontan Valley (Floyd et al., 2007, in the EA). Most occurrences in Nevada of nesting Swainson's hawk were located in agricultural valleys and/or scattered deciduous tree stands (Floyd et al., 2007, in the EA). Foraging typically occurs in open areas where the Swainson's hawk forages for insects and other small prey (Floyd et al., 2007, in the EA). Suitable foraging habitat occurs in the project area; however, given the lack of agricultural valleys and/or deciduous trees the potential for nesting Swainson's hawk within the project area is low.

### *Mammals*

BLM special status mammal species observed in the project area are limited to bats and include the following: Mexican free-tailed bat (*Tadarida brasiliensis*); little brown bat (*Myotis lucifugus*); long-legged myotis (*Myotis volans*); pallid bat (*Antrozous pallidus*); silver-haired bat (*Lasionycteris noctivagans*); western pipistrelle bat (*Parastrellus hesperus*); western small-footed myotis (*Myotis ciliolabrum*); and Yuma myotis (*Myotis yumanensis*).

The Mexican free-tailed bat is found throughout Nevada in a wide variety of habitats ranging from desert scrub to high elevation mountain habitats (680 to 8,200 feet AMSL) (Bradley et al., 2006, in the EA). This species roosts in a variety of structures including cliff faces, caves,

mines, buildings, bridges, and hollow trees. Some caves are used as long-term transient stopover roosts during migration (Bradley et al., 2006, in the EA). The Mexican free-tailed bat is known to travel long distances to foraging areas and often forages at high-altitudes. Roosting and foraging occurs within the project area.

The little brown bat could exist as a year-round resident primarily found at higher elevations. This species often is associated with coniferous forests. Foraging occurs in open areas among vegetation, along water margins, and above open water. Roost sites include hollow trees, rocky outcrops, buildings, and in mines and caves (Bradley et al., 2006, in the EA). This species has been documented within the project region. Scattered foraging and roosting habitat occur within the project area for this species.

The long-legged myotis occupies pinyon-juniper and montane coniferous forest habitats from approximately 3,050 to 11,220 feet AMSL throughout Nevada (Bradley et al., 2006, in the EA). Individuals typically day roost singly or in small groups in buildings, rock crevices, caves, abandoned mines, or in hollow trees; particularly large diameter snags or live trees with lightning scars (AGFD, 1993; Bradley et al., 2006; Harvey et al., 1999, in the EA). Night roosts and hibernacula are often in cave and mines. Foraging typically occurs in open areas, often at canopy height (Bradley et al., 2006, in the EA). Roosting and foraging habitat are present in the project area for this species. There is no hibernacula available for this species in the project area.

The pallid bat is a year-round resident in Nevada. Found primarily at low and middle elevations (1,300 to 8,400 feet AMSL), this species occupies a variety of habitats such as pinyon-juniper, blackbrush, creosote, sagebrush, and salt desert scrub (Bradley et al., 2006). This species feeds primarily on large ground-dwelling arthropods (e.g., scorpions, centipedes, grasshoppers); however, it also feeds on large moths (Bradley et al., 2006, in the EA). The pallid bat is a colonial species, roosting in groups of up to 100 individuals (AGFD, 1993, in the EA). Roost sites consist of rock outcrops, mines, caves, hollow trees, buildings, and bridges (AGFD, 1993; Bradley et al., 2006, in the EA). The pallid bat is intolerant of roost sites in excess of 40 degrees Celsius (Bradley et al., 2006, in the EA). Hibernacula are often occurs in caves and mines. The project area has roosting and foraging habitat for this species; however, no hibernacula is available.

The silver-haired bat is a transient spring and fall migrant that occupies low to middle elevations (1,500 to 8,200 feet AMSL) (Bradley et al., 2006, in the EA). This species inhabits coniferous and mixed deciduous/coniferous forests of pinyon-juniper, subalpine fir, white fir, limber pine, aspen, cottonwood, and willow (Bradley et al., 2006, in the EA). During the summer months, the silver-haired bat roosts almost exclusively in trees. Winter roosts include hollow trees, rock crevices, mines, caves and houses (Bradley et al., 2006, in the EA). This species gleans insects and moths in or near wooded areas and along edges of roads, streams, or water bodies. The project area has suitable roosting and foraging habitat for this species.

The western pipistrelle is found primarily in the southern and western portions of Nevada from approximately 688 to 8,366 AMSL (Bradley et al., 2006, in the EA). This species inhabits Lower and Upper Sonoran desert habitats of blackbrush, creosote, salt desert shrub and sagebrush, with occasional occurrence in Ponderosa pine and pinyon-juniper and is usually in association with rock features and canyons (Bradley et al., 2006, in the EA). The western pipistrelle typically day roosts in rock crevices, mines, and caves. The western-pipistrelle is a year-round resident in Nevada which forages on small moths, leafhoppers, mosquitoes, and flying ants. Foraging and roosting habitat are present for this species in the project area.

The small-foot myotis is found throughout Nevada from approximately 3,500 to 5,900 feet AMSL (Bradley et al., 2006, in the EA). This species inhabits a variety of habitats including desert scrub, grassland, sagebrush steppe, blackbrush, greasewood, pinyon-juniper woodland, pine-fir forest, agricultural land, and urban area (Bradley et al., 2006, in the EA). Day and maternity roosts of western small footed myotis have been found in crevices and cliffs, boulders, and on talus slopes. Summer roosts are highly variable and include buildings, mines, under the bark on trees, and crevices in cliffs and boulders (AGFD, 1993; Harvey et al., 1999, in the EA). This species prefers small protected dry crevices. Night and hibernation roosts are located in small caves and abandoned mine adits. Buildings also are used as temporary night roosts between flights. Western small-footed myotis forage for insects over the edge of rocky fluffs, in clearings, near rocks, and over forests (AGFD, 1993; Bradley et al., 2006; Harvey et al., 1999, in the EA). Roosting and foraging habitat are available for this species in the project area; however, there is no appropriate habitat for hibernacula.

The Yuma myotis is a year round resident found primarily in the southern and western half of Nevada at low to middle elevations (1,476 to 7,677 feet AMSL). This species occurs in a wide variety of habitats, including sagebrush, salt desert scrub, agricultures, playa, and riparian habitats. This species gleans aquatic insects over open water and above vegetation. Roost sites include buildings, trees, mines, caves, bridges, and rock crevices. Night roosts are usually associated with buildings, ridges, or other man-made structures (Bradley et al., 2006, in the EA). Roosting and foraging habitat are present for this species in the project area.

BLM special status mammal species with potential habitat in the project area include big brown bat (*Eptesicus fuscus*), California myotis (*Myotis californicus*), spotted bat (*Euderma maculatum*), and Townsend's big-eared bat (*Eptesicus fuscus*). These species have been documented in the historic mining district south of the project area. Additionally, pygmy rabbit (*Brachylagus idahoensis*), has a potential to occur in the project area.

The big brown bat is a year-round resident in Nevada. This species is found from low to high elevations (980 to 9,800 feet AMSL) and occupies a variety of habitats including pinyon-juniper, blackbrush, creosote, sagebrush, and salt desert scrub (Bradley et al., 2006, in the EA). This

species glean insects over water and open landscapes, as well as in both forested and edge settings (Bradley et al., 2006, in the EA). The big brown bat is a colonial species, roosting in groups up to several hundred. Roost sites include caves, mines, buildings, bridges, and trees. This species is known to be more tolerant of human habitation than other bat species. Roosting and foraging habitat is present for this species in the project area.

The California myotis is a year-round resident found throughout Nevada at low and middle elevations (689 to 8,957 feet AMSL) (Bradley et al., 2006, in the EA). This species occurs in a variety of habitats from Lower Sonoran desert scrub to forests. The California myotis glean insects above open habitat. This species typically roosts singly or in small groups, although some mines are known to shelter colonies of over 100 individuals. Roost sites include mines, caves, building rock crevices, hollow trees, and under exfoliating bark (Bradley et al., 2006, in the EA). The California myotis is known to forage throughout the winter. Roosting and foraging habitat is present for this species in the project area.

Distribution for the spotted bat throughout Nevada is scattered and patchy and is linked to the availability of cliff roosting habitat (Bradley et al., 2006, in the EA). The spotted bat is found in low elevation desert scrub to high elevation coniferous forest habitats, including pinyon-juniper, sagebrush, riparian and on urban high-rise (cliff analog) habitats (Bradley et al., 2006, in the EA). This species is closely associated with rocky cliffs. The spotted bat forages on insects and moths in montane habitats, over meadow, along forest edges, or in open coniferous woodlands. Potential roosting and foraging habits occurs with the project area.

The Townsend's big-eared bat is a year-round resident found throughout Nevada from low desert to high mountain habitats (690 to 11,400 feet AMSL) (Bradley et al., 2006, in the EA). The Townsend's big-eared bat primarily occurs in pinyon-juniper, mountain mahogany, white fir, blackbrush, sagebrush, salt desert scrub, agricultural lands, and urban habitats (Bradley et al., 2006, in the EA). This species prefers caves, mines, and buildings that maintain stable temperatures and airflow for nursery colonies, bachelor roosts, and hibernacula (Harvey et al., 1999, in the EA). It does not make major migrations and appears to be relatively sedentary, not traveling far from summer foraging grounds to winter hibernation sites (Harvey et al., 1999, in the EA). Its distribution seems to be determined by suitable roost and hibernation sites, primarily caves and mines. This bat is believed to feed entirely on moths (Harvey et al., 1999, in the EA) and glean insects from foliage and other surfaces (Bradley et al., 2006, in the EA). Foraging and roosting habitat are present for this species in the project area. Hibernacula are available at the end of the Kinsley Range in the old Kinsley Mine District near the quarries.

Typical pygmy rabbit habitat consists of dense stands of big sagebrush growing in deep loose soils that are deeper than 20 inches, have at least 13 to 30 percent clay content, and are light colored and friable. Pygmy rabbit habitat is generally on flatter ground or moderate slopes in Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*) uplands, Basin big sagebrush



(*Artemisia tridentata* ssp. *tridentata*) drainages, and in ephemera drainages in between ridges of low sagebrush (*Artemisia arbuscula*); however, they have been found in bitterbrush (*Purshia tridentata*), greasewood (*Sarcobatus* sp.), rabbitbrush (*Chrysothamnus* sp.), and snowberry (*Symphoricarpos* spp.) (IPRWG, 2008, in the EA).

The pygmy rabbit is believed to be one of only two rabbits in North America that digs its own burrows. Pygmy rabbits dig burrows at least three inches in diameter and a burrow may have three or more entrances. Burrows are relatively simple and shallow, often no more than seven feet in length and less than four feet deep with no distinct chambers. The reported elevation range for this species is 4,500 to 7,450 feet AMSL; however, they occur in elevations up to 8,000 feet AMSL in the mountains in central Nevada. The winter diet of pygmy rabbits is composed of up to 99 percent sagebrush. During spring and summer, their diet may consist of roughly 51 percent sagebrush, 39 percent grasses, and ten percent forbs. During winter, pygmy rabbits use extensive snow burrows to access sagebrush forage, as travel corridors among their underground burrows and possibly as thermal cover (USFWS, 2003, in the EA).

Areas of potential pygmy rabbit habitat were intensively searched for evidence of pygmy rabbits and their sign during surveys conducted by JBR in 2012. The areas surveyed did not appear to be suitable pygmy rabbit habitat (e.g. dense understory, friable soils), and no burrows or pygmy rabbits were found. The potential for this species to occur in the project area is low.